IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Ingo Zenz	Examiner: Jay Morrison
Serial No.:	10/750,003	Group Art Unit: 2168
Filed:	December 30, 2003	Docket: 2058.336US1
Title:	CONFIGURATION DATA CONTENT FOR A CLUSTERED SYSTEM	
	HAVING MULTIPLE INSTANCES	

REPLY BRIEF UNDER 37 C.F.R. § 41.41

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Commissioner for Patents
P.O. Box 1450
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This Reply Brief is presented in response to the Examiner's Answer, dated April 15, 2009, which was sent in answer to Appellant's Appeal Brief, filed on January 13, 2009. Appellant's Appeal Brief was filed in response to the rejection of claims 1-6, 8-10, 6-21, 23-26 and 28-31 of the above-identified application.

REMARKS

The Examiner's Answer ("Answer") dated April 15, 2009, includes substantially identical grounds for the rejections of claims 1-6, 8-10, 6-21, 23-26 and 28-31 as set forth in the Non-Final Office Action, mailed July 21, 2008. Appellants respectfully maintain that the Appeal Brief, which is hereby incorporated by reference and reasserted, overcomes the original grounds of rejections. Set forth below are additional and clarifying remarks relevant to the presented grounds for rejections provided by the Examiner in the Answer and/or in the Non-Final Office Action mailed July 21, 2008.

REJECTIONS OF CLAIMS 29-31 UNDER 35 U.S.C. § 103(A)

In the Examiner's Answer, in rejecting claim 29, the Examiner states that it would have been obvious to *combine* Patrizio and Slaughter. The Examiner provides no reason as to why or how a skilled artisan would *modify* either reference to achieve Appellant's claimed invention. Accordingly, under the Examiner's articulated reasoning, the references must describe each and every claimed element exactly as claimed, such that no modification would be required to achieve Appellant's claimed invention. This is quite simply not the case.

Appellant's claim 29 recites a "central storage node *including* a configuration data structure ... comprising a global configuration module and sub-cluster configuration module." In Figure 1 of Appellant's application, the configuration data structure is clearly shown to reside at the central storage node. (See Figure 1, References 106 and 130).

Patrizio does not describe a "central storage node *including* a configuration data structure." In the Non-Final Office Action of July 21, 2008, and again in the Examiner's Answer of April 15, 2009, the Examiner suggests that this claim element is described at lines 38-44 of column 3 of Patrizio. The passage cited by the Examiner describes a "screen shot of the ServiceGuard Manager product." (Patrizio, Col. 3, Lines 35-37). Appellant simply does not understand how a "screen shot" can be deemed equivalent to the claimed "central storage node including a configuration data structure." For instance, Appellant is mystified as to how a skilled artisan would go about combining the "screen shot" described in the cited passage of Patrizio with the teachings of Slaughter, to arrive at Appellant's claimed invention. Admittedly, the

screen shot described in the cited passage of Patrizio shows a graphical representation of a hierarchical map of objects, such as a tree of clusters that might be monitored by the ServiceGuard product. Nonetheless, a screenshot with a graphical representation of a tree of clusters could not possibly be combined, without modification, with the teachings of Slaughter, to achieve Appellant's claimed invention. Moreover, there is nothing in the cited passage, the figure described in the cited passage, or any other passage in Patrizio, to indicate that the ServiceGuard product "*includ[es]* a configuration data structure ... comprising a global configuration module and sub-cluster configuration module," as is claimed.

On page 26 of the Non-Final Office Action of July 21, 2008, the Examiner indicates that the ServiceGuard Manager and the node which it runs on are equivalent to the claimed central storage node. The Examiner further states, "since there is no specific description of what exactly entails [a] central storage node ... it can broadly be interpreted as a node which *has access* to the configuration data." Appellant disagrees.

The Examiner is free to construe the claims as broadly as is *reasonable in view of Appellant's specification*. In this case, claim 29 clearly states that the central storage node *includes* the configuration data structure. Figure 1 of Appellant's specification clearly shows that the central storage node includes (e.g., stores or contains) the configuration data structure. Throughout Appellant's specification, the configuration data structure is described as being included at the central storage node. Accordingly, the Examiner's interpretation of the claimed "central storage node" as "a node which *has access* to the configuration data" is overly broad and inconsistent with Appellant's specification and claim 29 in particular. When the claimed "central storage node" is construed, consistent with Appellant's specification, as a node that includes a configuration data structure, it is clear that the ServiceGuard Manager (and the node on which it executes) is not equivalent, as the ServiceGuard Manager does not include "a configuration data structure ... comprising a global configuration module and sub-cluster configuration module."

On page 27 of the Non-Final Office Action of July 21, 2008, the Examiner states that, "[t]he hierarchical map of objects and the configuration of these objects is shown in Figures 2-5 and described in the associated portions of the 'Detailed Description'" in Patrizio. Each and every one of Figures 2-5 illustrates a portion of a screen shot referred to as a "property sheet." Once again, Appellant is mystified as to how a skilled artisan could possibly combine the

illustrated property sheets with the teachings of <u>Slaughter</u> in the manner proposed by the Examiner, to achieve Appellant's claimed invention. The Examiner seems to be confusing a screen shot (e.g., a property sheet) showing a graphical representation of configuration data with a central storage node that includes the actual configuration data structure. The two concepts are not equivalent. The fact that a property sheet displayed by the ServiceGuard product shows configuration data does not mean that a configuration data structure resides on the ServiceGuard product. For instance, it is not the least bit uncommon for a graphical user interface (GUI) to display a graphical representation of a data structure that resides on another remote computer or node, for example, by communicating a request or query to the remote computer or node to retrieve data associated with the configuration data structure. In any case, the property sheets illustrated and described in <u>Patrizio</u> are not equivalent to the claimed, "central storage node including a configuration data structure ... comprising a global configuration module and sub-cluster configuration module." For this reason alone, claims 29-31 are not obvious in view of <u>Patrizio</u> and <u>Slaughter.</u>

Furthermore, the Examiner has failed to articulate a rationale to support a legal conclusion of obviousness. Obviousness under 35 U.S.C. § 103 is to be determined utilizing the framework set forth in <u>Graham v. John Deere Co</u>. The second step of the <u>Graham</u> analysis requires that the differences between the prior art and the claimed invention be ascertained. Ascertaining the differences between the claimed invention and the prior art requires interpreting the claim language, and considering both the invention and the prior art **as a whole**. The Examiner has failed in this regard, and because of this failure, the Examiner's reasoning is flawed.

In rejecting claims 29-31, the Examiner suggests that "it would have been obvious ... to combine <u>Patrizio</u> and <u>Slaughter</u> because using the steps of 'the central storage node to send information included in the configuration data structure to a node within a sub-cluster in response to a request from the node' would have given those skilled in the art the tools to improve the invention by providing configuration data that is highly available in case of single node crashes." First, the Examiner is apparently suggesting that Appellant's claimed element, "the central storage node ...," is the teaching or the motivating factor that would lead a skilled artisan to combine the references. This is a clear case of impermissible hindsight analysis.

Furthermore, the Examiner's reasoning is flawed. If, as the Examiner suggests, Patrizio describes a "central storage node including a configuration data structure" (which it does not), a skilled artisan would not have been motivated to combine Patrizio with Slaughter in the manner suggested by the Examiner, because Slaughter clearly teaches away from the concept of a centralized storage node for storing a configuration data structure. The whole point of the invention described in Slaughter is to distribute configuration data among the various nodes in a cluster so as to prevent a situation in which the failure of one node results in the loss of the configuration data. For example, in the "Background of the Invention" section, at lines 41-54 of column 1, Slaughter states:

> One potential solution to maintaining consistent data among the nodes is to have a central configuration database for data that must be shared among the nodes of the cluster. Each node may query or update the central configuration database. For the purposes of this specification, a configuration database is memory or disk storage area for storing configuration parameters, such as parameters to boot a system. Because only one copy of the configuration database exists, the consistency of data is insured. Unfortunately, the node that stores the central configuration database becomes a single point of failure for the cluster. If the node that stores the control configuration database become non-operational, the other nodes of the cluster do not have access to the needed data and the cluster cannot function properly.

Because Slaughter views a central storage node as a potential "single point of failure", Slaughter describes a distributed configuration database where configuration data is duplicated across nodes in a cluster. Therefore, a skilled artisan considering the references at the time of Appellant's invention would have had no motivation to combine the references as proposed by the Examiner. Consequently, claims 29-31 are not obvious in view of Patrizio and Slaughter.

REJECTIONS OF CLAIMS 1-2 AND 16-18 UNDER 35 U.S.C. § 103(A)

With respect to claims 1-2 and 16-18, Appellant submits that the Examiner has failed to articulate a rationale that supports a legal conclusion of obviousness. Even under a flexible application of the teaching, suggestion, motivation (TSM) test endorsed by the court in KSR, the Examiner must still provide a "finding that there was some teaching, suggestion, or motivation,

either in the references themselves or in the knowledge generally available to one of ordinary

skill in the art, to modify the reference or combine reference teachings."

In the Examiner's Answer, in rejecting independent claims 1 and 16, the Examiner states

that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was

made to combine Rubert, Patrizio, and Slaughter because using the steps of 'and to manage

configuration information of at least one dispatcher node that distributes requests to a plurality of

nodes of the clustered system' would have given those skilled in the art the tools to improve the

invention by providing configuration data that is highly available in case of single node crashes."

Appellant respectfully submits that the rationale provided by the Examiner is nonsense.

First, the Examiner has not clearly articulated what the teaching, suggestion or motivation is that

would lead a skilled artisan to combine the references as proposed. Appellant can only speculate

that the Examiner is finding the teaching, suggestion or motivation in Appellant's invention –

particularly the claimed element, "and to manage configuration information of at least one

dispatcher node that distributes requests to a plurality of nodes of the clustered system." For

instance, the Examiner states that the claimed element "would have given those skilled in the art

the tools to improve the invention ...." It is unclear to what invention the Examiner is referring,

but Appellant speculates that it is Appellant's claimed invention at issue. This of course is an

example of impermissible hindsight analysis.

Furthermore, the Examiner seems to be suggesting that a skilled artisan would be

motivated to combine the references in the manner proposed, because the resulting system would

"provid[e] configuration data that is highly available in case of single node crashes." However,

this advantage (i.e., highly available configuration data) is made possible by using a distributed

configuration database, as described in Slaughter. According to Slaughter, configuration

information is distributed among the nodes of a cluster to ensure that the failure of one node does

not result in the loss of all configuration information. The reason that configuration data is

highly available in cases of single node crashes is because of the distributed nature of the system

described in Slaughter. The advantage (i.e., the highly available configuration data) is not a

result of the claimed element, "and to manage configuration information of at least one

dispatcher node that distributes requests to a plurality of nodes of the clustered system," as

suggested by the Examiner. The advantage is a result of distributing (i.e., replicating) the

configuration database among the various nodes of the cluster. Beacause, as described above in connection with the discussion of claim 29, the Slaughter reference specifically teaches away from the concept of centralized management, a skilled artisan would not have been motivated to combine Slaughter with Patrizio and Rubert in the manner proposed by the Examiner. For at least these reasons, claims 1-2 and 16-18 are not obvious in view of the combination of references.

Conclusion

The pending claims subject to this appeal are believed patentable. Appellant respectfully submits that the claims are in condition for allowance and request the Board issue an order to withdraw the rejections of claims 1-6, 8-10, 6-21, 23-26 and 28-31.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

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